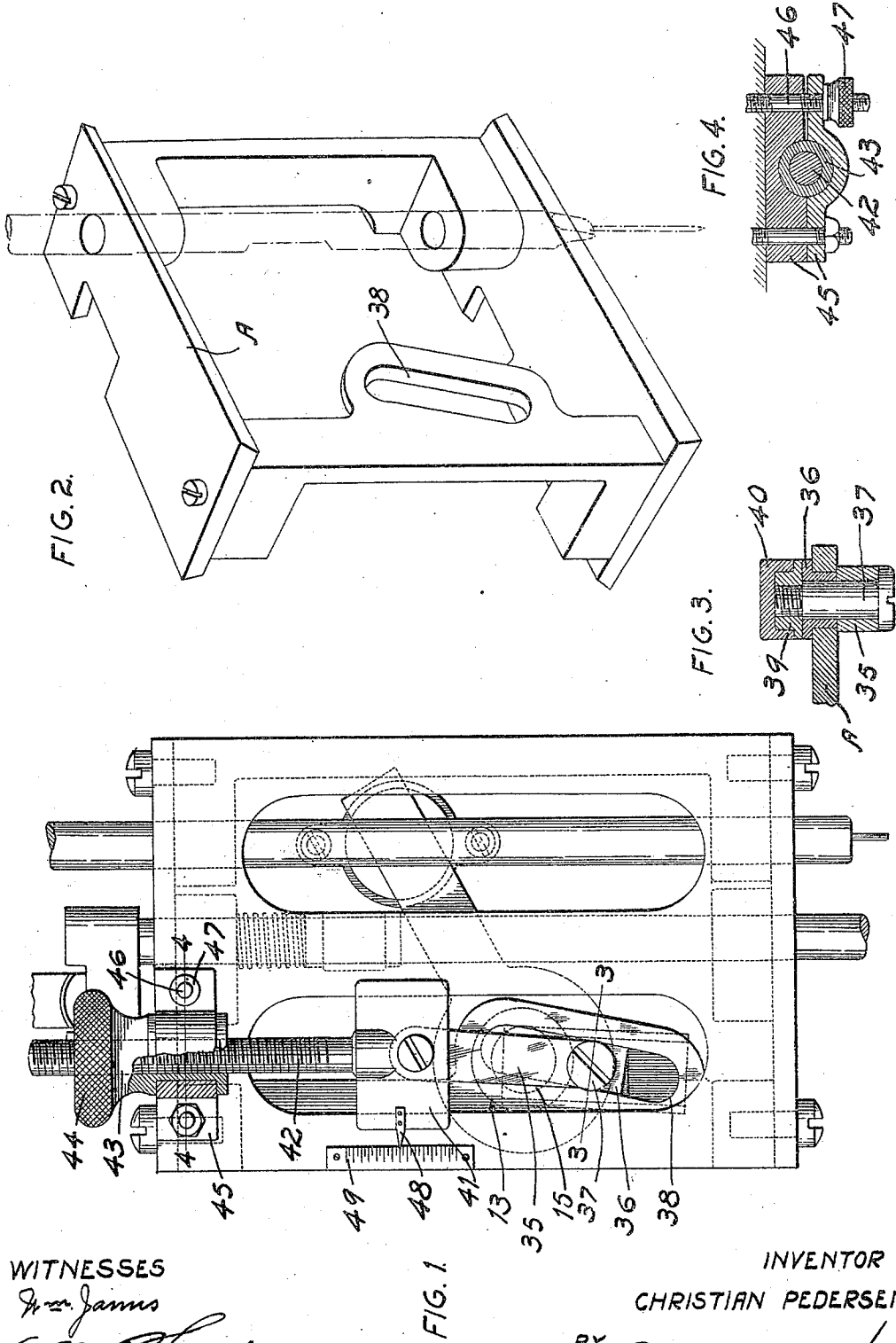


C. PEDERSEN.
 AWL FEED FOR SEWING MACHINES.
 APPLICATION FILED JULY 19, 1909.

960,692.

Patented June 7, 1910.



WITNESSES

Wm. Jannus
M. Smith

FIG. 1

INVENTOR

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By *J. R. Cornwall* ATT'Y.

UNITED STATES PATENT OFFICE.

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MISSOURI.

AWL-FEED FOR SEWING-MACHINES.

960,692.

Specification of Letters Patent.

Patented June 7, 1910.

Original application filed April 23, 1909, Serial No. 491,667. Divided and this application filed July 19,
1909. Serial No. 508,449.

To all whom it may concern:

Be it known that I, CHRISTIAN PEDERSEN, a citizen of the United States, residing at Skörning pr. Galtén, Jutland, Denmark, have invented a certain new and useful Improvement in Awl-Feeds for Sewing-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevational view of my improved awl feed mechanism. Fig. 2 is a detail view of the awl carriage. Fig. 3 is a sectional view on line 3—3 Fig. 1. Fig. 4 is a sectional view on line 4—4 Fig. 1.

This invention relates to a new and useful improvement in awl feed mechanisms for sewing machines of that class known as the Campbell leather sewing machine, as illustrated in application for United States Letters Patent, Serial No. 491,667, filed by me on or about April 23d, 1909, and of which this is a division.

The object of my present invention is to regulate the awl feed of the machine, whereby the length of the stitch may be adjusted.

Means are provided for rigidly locking the parts in their adjusted positions, whereby when said parts are once adjusted they are not liable to be displaced.

In the Campbell leather sewing machine, to which my awl feed mechanism is particularly applicable, a hollow shaft 13 is driven in the operation of the machine. This hollow shaft is illustrated by dotted lines in Fig. 1. The awl carriage shown in Fig. 2 is mounted so as to move in horizontal ways in the end of the overhanging arm of the machine, in which arm the shaft 13 is mounted.

35 is a link connected at its lower end to a block 36 by means of a screw 37, block 36 operating in an inclined slot 38 in the awl carriage A. (See Fig. 2.) The rear or inner end of screw 37 is threaded into a block 39, which is slidingly mounted in the channel of an arm 40 fixed upon the forward end of shaft 15, which shaft extends through the hollow shaft 13. The shaft 15 is a part of the sewing machine mechanism and is op-

erated in the usual manner during the operation of said sewing machine.

Pivotally connected to the upper end of link 35 is a plate 41, from which extends a threaded rod 42.

43 is a nut threaded on rod 42 and having a milled head 44 by which it can be turned. Nut 43 is held against vertical displacement by means of clamping plates 45. 46 is a bolt passing through these plates and provided with a milled clamping nut 47 on its outer end.

48 is a pointer carried by the plate 41 for coöperating with a scale 49 whose graduations correspond with the various stitch lengths which the machine is capable of producing.

When the stitch length adjusting mechanism is to be set for a certain stitch, the clamping nut 47 is loosened and the adjusting nut 43 is now free to be rotated between the plates 45, which movement raises or lowers the rod 42 corresponding to the rotary movement of the nut 43. The graduated scale 49 forms a guide for the adjustment of the stitch length, and when the pointer or finger 48 is moved to the proper mark on said scale, the parts are so adjusted as to insure the proper length of stitch. As the rod 42 is raised or lowered, the link 35 will be correspondingly moved, and the pivot screw 37 and parts carried thereby will be raised or lowered in the slot 38, thus increasing or decreasing the distance between the axes of the pivot screw and the shaft 15. It will be readily understood that by changing the position of the pivot screw 37, the distance through which this screw moves is changed and consequently the distance which the carriage moves will be correspondingly changed. After the proper adjustment is obtained in the manner just described, the nut 47 is tightened to clamp the nut 43, and thus the parts are held in their adjusted positions.

Having thus described my invention, what I claim is:

1. In a wax thread sewing machine, the combination with the movable awl carriage, of means whereby said carriage is reciprocated, an adjustable connection between the awl carriage and the reciprocating means, a link forming part of said adjustable con-

nection, a threaded rod connected to the link, a nut on said threaded rod, a fixed bearing in which said nut rotates, and means connected with said bearing for clamping said nut against rotation.

2. In a wax thread sewing machine, the combination with the movable awl carriage, of means whereby said carriage is reciprocated, an adjustable connection between the awl carriage and the reciprocating means, a link forming part of said adjustable connection, a threaded rod connected to the link, a nut on said threaded rod, a fixed bearing, and means whereby said bearing may be tightened to clamp the nut and hold the same against rotation.

3. In a wax thread sewing machine, the combination with the movable awl carriage, of means whereby said carriage is reciprocated, an adjustable connection between the awl carriage and the reciprocating means, a link forming part of said adjustable connection, a threaded rod connected to the link, a nut on said threaded rod, a split bearing for the nut, which split bearing is mounted on a fixed part of the machine, and means whereby said split bearing is tightened to clamp the nut and hold the same against rotation.

4. In a wax thread sewing machine, the combination with the movable awl carriage, of means whereby said carriage is reciprocated,

an adjustable connection between the awl carriage and the reciprocating means, a link forming part of said adjustable connection, a threaded rod connected to the link, a nut on said threaded rod, a fixed bearing, means whereby said bearing may be tightened to clamp the nut and hold the same against rotation, a pointer carried by the threaded rod, and a graduated scale on the machine adjacent the pointer.

5. In a wax thread sewing machine, the combination with the movable awl carriage, of means whereby said carriage is reciprocated, an adjustable connection between the awl carriage and the reciprocating means, a link forming part of said adjustable connection, a threaded rod connected to the link, a nut on said threaded rod, a split bearing for the nut, which split bearing is mounted on a fixed part of the machine, means whereby said split bearing is tightened to clamp the nut and hold the same against rotation, a pointer carried by the threaded rod, and a graduated scale on the machine adjacent the pointer.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 30 day of June 1909.

CHRISTIAN PEDERSEN.

Witnesses:

AXEL PERMIN,
OTTO SCHIOTT.